

**Date:** December 18, 2012

**To:** Thomas J. Bonfield, City Manager  
**Through:** Keith Chadwell, Deputy City Manager  
**From:** Donald F. Greeley, Director, Water Management  
Martin Nona, Assistant Director, Water Management

**Subject:** Water Management Computerized Maintenance Management System (CMMS) – Software Purchase – NEXGEN Utility Management, Inc.

**Executive Summary**

On July 26, 2012, proposals were opened for the Water Management Computerized Maintenance Management System (CMMS) Project. The project consists of the purchase and installation of a CMMS software package on City owned computers and servers. The CMMS software will assist the Department in tracking work orders and analyzing equipment performance at our plants as part of the Department's Asset Management Program. The Department, working collaboratively with the Technology Solutions Department, went through an extensive selection process and identified a series of potential software vendors. After on-site demonstrations that took place in September, City Staff selected NEXGEN Utility Management Inc. (NEXGEN) software. The Department recommends that NEXGEN. be contracted to supply licenses and perform integration services totaling \$240,400.00. The Department is recommending a contingency fund (~10%) be established for the project to resolve any unforeseen integration issues during the project.

**Recommendations**

The Department of Water Management recommends that the City Council:

1. Authorize the City Manager to execute a contract with NEXGEN Utility Management Inc., for the Computerized Maintenance Management System Project for the amount of \$240,400.00; and
2. Establish a contingency fund for the contract in the amount of \$24,000.00; and
3. Authorize the City Manager to negotiate change orders to the contract provided that the cost of all change orders does not exceed \$24,000.00 and the total project cost does not exceed \$264,400.00.

**Background**

The City of Durham Department of Water Management owns and operates the following facilities:

- Lake Michie and Little River reservoirs, dams and raw water pump stations
- Williams Water Treatment Plant (WTP) and Brown WTP
- 5 Booster Pump Stations
- 5 Elevated Tanks
- North Durham Water Reclamation Facility (WRF) and South Durham WRF

- 62 wastewater lift stations throughout collection system
- DWM Mist Lake Facility, 1600 Mist Lake Drive
- City of Durham closed landfill facility
- Various remote facilities and buildings

Currently, DWM does not utilize a CMMS for these assets, but uses a Microsoft Access database to document limited information about asset-related work and for warehouse inventory tracking. It is the intent of this project to implement a CMMS for these asset groups to improve its maintenance processes and overall level of service. A CMMS program is an integral part of the Department's Asset Management Program.

The new CMMS is required to run as a web-based application using MS SQL Server for the database engine. Users will access the CMMS from Windows workstations operating on the City of Durham Local Area Network (LAN) as well as mobile devices operating throughout the service area and connected to the LAN via cellular telephone networks. DWM proposes the City would contract with a Vendor/Implementer (CMMS Vendor) to furnish software and services to fully implement the new CMMS.

### **Issues and Analysis**

The Department worked closely with its consultant, Brown & Caldwell, to develop work flows for the maintenance operations at the plants and associated sites. The work flows were then used to develop the overall requirements of a CMMS system. A Request for Proposals (RFP) was then developed using these requirements.

On July 26, 2012 the Department received 11 proposals from proposed firms:

- Cohesive Information Solutions
- EMA
- Infor
- Lucity
- Maintenance Connection
- Mass Group
- Microwest
- NEXGEN
- Timmons
- URS
- Woolpert

The selection committee, comprised of staff from the Department, the Technology Solutions Department and the Equal Opportunity/Equity Assurance Department, selected three vendors (NEXGEN, Lucity and Timmons Group) to demonstrate their software. On September 27<sup>th</sup> and 28<sup>th</sup>, the three vendors made 4 hour scripted demonstrations to a wide selection of City staff and specifically maintenance personnel. The consensus of the group was the NEXGEN software provided the City with the best value proposition for their software and implementation services.

The City entered into negotiations with NEXGEN and developed a scope of work, an anticipated schedule and fee. The City identified several key elements of NEXGEN's software that were

particularly applicable to the Department's Asset Management Program. Most notably, NEXGEN has a user friendly mobile application which will allow field personnel to quickly access key elements of asset information and work flow management in the field from a field tablet platform.

The Technology Solutions Department and the Department of Water Management coordinated extensively on various aspects of how best to integrate the software system into our computer infrastructure. The full implementation of the project is expected to take from 7-8 months. The project is comprised of three major tasks:

- Task 1 – Work planning, Installation and Business Processes
- Task 2 – Data Migration and Configuration
- Task 3 – Training and Deployment

### **Alternatives**

Alternative 1 – Continue to use a Microsoft Access Database – This is not recommended as the existing system does not provide the functionality for use as part of an asset management program. The Department needs a more highly developed and capable CMMS system than the Department can currently develop in house.

Alternative 2 – Contract with a different vendor – None of the alternative vendors were nearly as capable of tailoring their software to the specific needs of the Department. The Department's needs cannot be met adequately by the other two vendors interviewed. Additionally, the other vendors proposed more expensive and cumbersome solutions.

### **Financial Impacts**

Funds for this project are available in the Capital Improvements Program, Water Reclamation Facility Rehabilitation and Water Plant Rehabilitation, in the following accounts:

4100P007-732309-P0B0P	\$120,000.00
4100P007-732309-P251H	\$120,400.00
4100P007-731900-P251H	\$ 24,000.00

Long term annual maintenance costs are anticipated to be \$25,000-\$30,000 per year. These annual costs include software maintenance plan, telecommunications and annual hardware replacement costs.

### **SDBE Summary**

The Equal Opportunity/Equity Assurance Department reviewed the proposal submitted by NEXGEN Utility Management, Inc. of Sacramento, CA and have determined that they are in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

### **SDBE REQUIREMENTS**

No MSDBE or WSDBE goals were set.

### **WORKFORCE STATISTICS**

Workforce statistics for NEXGEN Utility Management, Inc. of Sacramento, CA are as follows:

Total Workforce	40	
Total Females	19	(48%)
Total Males	21	(52%)
Black Males	0	(0%)
White Males	11	(28%)
Other Males	10	(25%)
Black Females	0	(0%)
White Females	3	(7%)
Other Females	16	(40%)

CC: NexGen Proposal